

**What is claimed is:**

1. An electronic apparatus comprising:  
at least one codec for decoding a signal transmitted from  
5 a telephone line, said transmitted signal having a  
destination address corresponding to a phone  
number designated by said telephone line;  
a control circuit connected to said codec for controlling  
an operation flow of said electronic apparatus; and  
10 a communication interface connected to said control  
circuit for communicating with outside.
2. The electronic apparatus of claim 1, wherein said  
signal has a content selected from the group consisted of CID, EID,  
15 e-mail, short message, e-survey, e-advertisement, weather report,  
traffic transportation time table, stock information, e-lottery,  
traffic status, and entertainment information.
3. The electronic apparatus of claim 1, wherein said  
20 codec is selected from the group consisted of FSK, DTMF and CAS  
codecs.
4. The electronic apparatus of claim 1, further  
comprising a display driver connected to said control circuit for  
25 driving a display.

5. The electronic apparatus of claim 4, wherein said display is selected from the group consisted of CRT, LED, LCD and PDP display.

5

6. The electronic apparatus of claim 4, wherein said display is provided by a TV or computer.

7. The electronic apparatus of claim 1, further comprising an alert output apparatus connected to said control circuit for notifying a new message arrived.

10

8. The electronic apparatus of claim 1, further comprising a voice output apparatus connected to said control circuit for reading out a message recovered by said codec.

15

9. The electronic apparatus of claim 1, further comprising a memory connected to said control circuit.

10. The electronic apparatus of claim 9, wherein said memory stores a content including a data and/or application program, said data is selected from the group consisted of dictionary, address book, calendar, financial information, e-book, and user-predetermined information.

20

25

11. The electronic apparatus of claim 10, wherein said user-predetermined information includes a predetermined terminal for receiving a message, said terminal is selected from the group consisted of medical institute, fire station, security company, police office, friend and/or family of a user, and other user-predetermined terminals.

12. The electronic apparatus of claim 1, wherein said communication interface communicates with an input apparatus by a wired or wireless transmission medium.

13. The electronic apparatus of claim 12, wherein said input apparatus is selected from the group consisted of remote controller, mobile telephone, pager, electronic watch, handwritten input apparatus, keyboard and PDA.

14. The electronic apparatus of claim 12, wherein said transmission medium is selected from the group consisted of power line, telephone line, RF and IR.

15. The electronic apparatus of claim 1, wherein said communication interface further communicates with an intelligent appliance in one-way or two-way manner by a wired or wireless transmission medium.

16. The electronic apparatus of claim 15, wherein said transmission medium is selected from the group consisted of power line, telephone line, RF and IR.

5           17. The electronic apparatus of claim 15, wherein said intelligent appliance is selected from the group consisted of an air conditioner, VCR, coffee maker, washing machine, electromagnetic stove, microwave oven, refrigerator, VCD player, DVD player and SVCD player.

10           18. The electronic apparatus of claim 1, wherein said communication interface is further connected to a security apparatus by a wired or wireless transmission medium for implementing a security system.

15           19. The electronic apparatus of claim 18, wherein said security apparatus is selected from the group consisted of sensor, fire alarm and monitoring system.

20           20. The electronic apparatus of claim 18, wherein said transmission medium is selected from the group consisted of power line, telephone line, RF and IR.

25           21. The electronic apparatus of claim 1, wherein said communication interface communicates with a healthcare

apparatus by a wired or wireless transmission medium for performin a healthcare function.

22. The electronic apparatus of claim 19, wherein said  
5 healthcare apparatus is selected from the group consisted of  
sphygmomanometer, heart-rate measuring apparatus, glucometer,  
heart diagnostic apparatus and other health test apparatus.

23. The electronic apparatus of claim 21, wherein said  
10 transmission medium is selected from the group consisted of  
power line, telephone line, RF and IR.

24. The electronic apparatus of claim 1, wherein said  
communication interface communicates with an emergency call  
15 apparatus by a wired or wireless transmission medium for  
performing an emergency call function.

25. The electronic apparatus of claim 24, wherein said  
emergency call apparatus includes a button for instantly sending a  
20 message to said communication interface.

26. The electronic apparatus of claim 24, wherein said  
emergency call apparatus is a portable apparatus.

25 27. The electronic apparatus of claim 24, wherein said

emergency call apparatus is an emergency call service terminal installed at a particular location.

28. The electronic apparatus of claim 26, wherein said  
5 portable apparatus is selected from the group consisted of mobile telephone, pager, electronic watch and remote controller.

29. The electronic apparatus of claim 24, wherein said  
transmission mediums is selected from the group consisted of  
10 power line, telephone line, RF, IR and signal transmission line.

30. The electronic apparatus of claim 1, further comprising a reader for proceeding an e-payment mechanism.

15 31. The electronic apparatus of claim 30, wherein said reader is a card reader.

32. A TV set comprising the electronic apparatus of claim 1.

20

33. An electronic apparatus for communicating with an intelligent appliance, comprising:

at least one decoder for decoding an instruction  
transmitted from a telephone line corresponding to  
25 a phone number, said instruction being transmitted

to control said intelligent appliance or exchange an information; and

5 a control circuit connected to said decoder for controlling an operation flow of said electronic apparatus for said instruction to control said intelligent appliance or exchange an information.

34. The electronic apparatus of claim 33, further comprising a communication interface connected to said control  
10 circuit for transmitting said instruction to said intelligent appliance in various signal formats or receiving a signal from said intelligent appliance.

35. The electronic apparatus of claim 33, wherein said  
15 decoder is selected from the group consisted of FSK, DTMF and CAS decoders.

36. The electronic apparatus of claim 33, further comprising an encoder connected to said control circuit.  
20

37. The electronic apparatus of claim 36, wherein said encoder is selected from the group consisted of FSK, DTMF and CAS encoders.

25 38. The electronic apparatus of claim 33, further

comprising a display driver connected to said control circuit for driving a display.

39. The electronic apparatus of claim 38, wherein said  
5 display is selected from the group consisted of CRT, LED, LCD and PDP display.

40. The electronic apparatus of claim 38, wherein said  
display is provided by a TV or computer.

10

41. The electronic apparatus of claim 34, further comprising an alert output apparatus connected to said control circuit for notifying said instruction arrived.

15 42. The electronic apparatus of claim 34, wherein said communication interface communicates with outside by a wired or wireless transmission medium.

43. The electronic apparatus of claim 42, wherein said  
20 transmission medium is selected from the group consisted of power line, telephone line, RF and IR.

44. The electronic apparatus of claim 33, wherein said  
intelligent appliance is selected from the group consisted of air  
25 conditioner, VCR, coffee maker, washing machine, electromagnetic



stove, microwave oven, refrigerator, VCD player, DVD player and SVCD player.

45. An intelligent appliance characterized in that said  
5 intelligent appliance includes an intelligent appliance for receiving  
an instruction transmitted from a teletelephone network, said  
transmitted instruction having a destination address  
corresponding to a phone number designated by said intelligent  
appliance, said intelligent appliance comprising:  
10 at least one decoder for decoding said instruction, said  
instruction being transmitted to control said  
intelligent appliance or exchange an information;  
and  
a control circuit connected to said decoder for  
15 controlling an operation flow of said electronic  
apparatus for said instruction to control said  
intelligent appliance or exchange an information.

46. The intelligent appliance of claim 45, wherein said  
20 electronic apparatus further comprises a communication interface  
connected to said control circuit for communicating with outside in  
one-way or two-way manner.

47. The intelligent appliance of claim 45, wherein said  
25 decoder is selected from the group consisted of FSK, DTMF and

CAS decoders.

48. The intelligent appliance of claim 45, further comprising an encoder connected to said control circuit.

5

49. The intelligent appliance of claim 48, wherein said encoder is selected from the group consisted of FSK, DTMF and CAS encoders.

10

50. The intelligent appliance of claim 45, further comprising an alert output apparatus connected to said control circuit for notifying said instruction arrived.

15

51. The intelligent appliance of claim 45, wherein said communication interface communicates with outside in one-way or two-way manner by a wired or wireless transmission medium.

20

52. The intelligent appliance of claim 45, wherein said transmission medium is selected from the group consisted of power line, telephone line, RF and IR.

25

53. The intelligent appliance of claim 45, wherein said intelligent appliance is selected from the group consisted of air conditioner, VCR, coffee maker, washing machine, electromagnetic stove, microwave oven, refrigerator, VCD player, DVD player and

SVCD player.

54. The intelligent appliance of claim 45, wherein said phone number includes an extension number or a code.

5

55. A method for controlling an intelligent appliance having a decoder for decoding an instruction transmitted from a telephone network to operate said intelligent appliance, said method comprising the steps of:

10                   corresponding said intelligent appliance to a phone  
                          number; and  
                          transmitting said instruction to control said intelligent  
                          appliance, said transmitted instruction having a  
                          destination address corresponding to said phone  
15                   number.

56. The method of claim 55, wherein said intelligent appliance is selected from the group consisted of air conditioner, VCR, coffee maker, washing machine, electromagnetic stove,  
20   microwave oven, refrigerator, VCD player, DVD player and SVCD player.

57. The method of claim 55, wherein said instruction is edited on an internet.

25

58. The method of claim 55, wherein said instruction is  
edited by a user on a website.

59. The method of claim 55, wherein said website is  
5 provided by an appliance supplier.

60. The method of claim 55, wherein said phone  
number includes an extension number or a code.

10 61. The method of claim 55, further comprising feeding  
back by said intelligent appliance based on a source and content of  
said instruction.

62. A method for a server for generating a control  
15 instruction for an intelligent appliance, comprising the steps of:  
providing a menu for a user to select an intelligent  
appliance to control and an operation to proceed;  
generating a control instruction based on an input by  
said user at the previous step;  
20 assigning a phone number configured by said user to be  
a destination address to receive said control  
instruction; and  
transmitting said control instruction to said phone  
number side.

25

63. The method of claim 62, wherein said server is provided by an appliance supplier.

64. The method of claim 62, wherein said user  
5 connects an input apparatus to said server by an internet.

65. The method of claim 64, wherein said input apparatus is selected from the group consisted of computer, PDA, handwritten input apparatus and mobile telephone.  
10

66. The method of claim 62, wherein said phone number includes an extension number or a code.

67. An intelligent appliance control system  
15 implemented on a telephone network, comprising:

an electronic apparatus corresponding to a phone number;

an instruction source for transmitting a control instruction to said electronic apparatus through  
20 said telephone network for controlling said intelligent appliance, said control instruction having a destination address corresponding to said phone number; and

at least one intelligent appliance communicating with  
25 said electronic apparatus;

wherein said electronic apparatus comprises:

at least one decoder for decoding said control instruction; and

5 a control circuit connected to said decoder for controlling an operation flow of said electronic apparatus for said recovered control instruction to control said intelligent appliance.

10 68. The system of claim 67, wherein said decoder is selected from the group consisted of FSK, DTMF and CAS decoders.

15 69. The system of claim 67, further comprising an encoder connected to said control circuit.

20 70. The system of claim 69, wherein said encoder is selected from the group consisted of FSK, DTMF and CAS encoders.

71. The system of claim 67, further comprising an alert output apparatus connected to said control circuit for notifying said instruction arrived.

25 72. The system of claim 67, wherein said electronic

apparatus further comprises a communication interface connected to said control circuit for communicating with outside in one-way or two-way manner.

5           73. The system of claim 72, wherein said communication interface communicates with outside by a wired or wireless transmission medium.

10           74. The system of claim 72, wherein said communication interface receives an instruction from an input apparatus by a wired or wireless transmission medium.

15           75. The system of claim 74, wherein said input apparatus is selected from the group consisted of remote controller, mobile telephone, pager, electronic watch, handwritten input apparatus, keyboard and PDA.

20           76. The system of claim 73 or 74, wherein said transmission medium is selected from the group consisted of power line, telephone line, RF and IR.

25           77. The system of claim 67, wherein said intelligent appliance is selected from the group consisted of air conditioner, VCR, coffee maker, washing machine, electromagnetic stove, microwave oven, refrigerator, VCD player, DVD player and SVCD

player.

78. The system of claim 67, wherein said electronic apparatus is integrated in said intelligent appliance.

5

79. The system of claim 67, wherein said instruction source is selected from the group consisted of mobile telephone, PDA, computer and website.

10

80. The system of claim 79, wherein said website is provided by an appliance supplier.

81. The system of claim 67, wherein said phone number includes an extension number or a code.

15

82. A security system implemented on a teletelephone network, comprising:

at least one monitoring apparatus for monitoring an environment; and

20

an electronic apparatus for communicating with a telephone line corresponding to a phone number, said electronic apparatus communicating with said monitoring apparatus by a wired or wireless transmission medium, said electronic apparatus comprising:

25



a signal format converter for converting a signal  
transmitted from said monitoring apparatus  
to a format for transmission on said  
telephone line; and  
5 a control circuit connected to said signal format  
converter for controlling an operation flow of  
said electronic apparatus to transmit said  
signal from said monitoring apparatus to a  
predetermined terminal by said telephone  
10 line.

83. The security system of claim 82, wherein said  
signal format converter is selected from the group consisted of FSK,  
DTMF and CAS codecs.

15

84. The security system of claim 82, wherein said  
predetermined terminal is selected from the group consisted of  
medical institute, fire station, security company, police office,  
friend and/or family of a user, and other predetermined terminal.

20

85. The security system of claim 82, wherein said  
electronic apparatus further comprises a communication interface  
connected to said control circuit for communicating with outside in  
one-way or two-way manner.

25

86. The security system of claim 85, wherein said communication interface communicates with an input apparatus by a wired or wireless transmission medium.

5           87. The security system of claim 86, wherein said input apparatus is selected from the group consisted of remote controller, mobile telephone, pager, electronic watch, keyboard, handwritten input apparatus and PDA.

10           88. The security system of claim 82 or 86, wherein said transmission medium is selected from the group consisted of power line, telephone line, RF and IR.

15           89. The security system of claim 82, wherein said monitoring apparatus is selected from the group consisted of sensor, fire alarm, and monitoring system.

20           90. An electronic apparatus for a security system, said electronic apparatus corresponding to a phone number, said security system including at least one monitoring apparatus for monitoring an environment and communicating with said electronic apparatus by a wired or wireless transmission medium, said electronic apparatus comprising:

25           a signal format converter for converting a signal transmitted from said monitoring apparatus to a

format for transmission on a telephone line; and  
a control circuit connected to said signal format  
converter for controlling an operation flow of said  
electronic apparatus to transmit said signal from  
5 said monitoring apparatus to a predetermined  
terminal by said telephone line.

91. The electronic apparatus of claim 90, wherein said  
signal format converter is selected from the group consisted of FSK,  
10 DTMF and CAS codecs.

92. The electronic apparatus of claim 90, wherein said  
predetermined terminal is selected from the group consisted of  
medical institute, fire station, security company, police office,  
15 friends and family of a user, and other predetermined terminals.

93. The electronic apparatus of claim 90, further  
comprising a communication interface connected to said control  
circuit for communicating with outside in one-way or two-way  
20 manner.

94. The electronic apparatus of claim 93, wherein said  
communication interface communicates with an input apparatus  
by a wired or wireless transmission medium.  
25

95. The electronic apparatus of claim 94, wherein said input apparatus is selected from the group consisted of remote controller, mobile telephone, pager, electronic watch, keyboard, handwritten input apparatus and PDA.

5

96. The electronic apparatus of claim 90 or 94, wherein said transmission medium is selected from the group consisted of power line, telephone line, RF and IR.

10

97. The electronic apparatus of claim 90, wherein said monitoring apparatus is selected from the group consisted of sensor, fire alarm and monitoring system.

15

98. The electronic apparatus of claim 90, wherein said phone number includes an extension number or a code.

99. A monitoring apparatus for monitoring an environment, characterized in that said monitoring apparatus is built-in with an electronic apparatus comprising:

20

at least one signal format converter for converting a signal transmitted from said monitoring apparatus to a format for transmission on a telephone line; and

25

a control circuit connected to said signal format converter for controlling an operation flow of said

electronic apparatus to transmit said signal from said monitoring apparatus to a predetermined terminal by said telephone line corresponding to a phone number.

5

100. The monitoring apparatus of claim 99, wherein said signal format converter is selected from the group consisted of FSK, DTMF and CAS codecs.

10

101. The monitoring apparatus of claim 99, wherein said predetermined terminal is selected from the group consisted of medical institute, fire station, security company, police office, friends and family of a user, and other predetermined terminals.

15

102. The monitoring apparatus of claim 99, wherein said electronic apparatus further comprises a communication interface connected to said control circuit for communicating with outside in one-way or two-way manner.

20

103. The monitoring apparatus of claim 99, wherein said communication interface communicates with an input apparatus by a wired or wireless transmission medium.

25

104. The monitoring apparatus of claim 103, wherein said input apparatus is selected from the group consisted of

remote controller, mobile telephone, pager, electronic watch,  
keyboard, handwritten input apparatus and PDA.

105. The monitoring apparatus of claim 102 or 103,  
5 wherein said transmission medium is selected from the group  
consisted of power line, telephone line, signal transmission line,  
RF and IR.

106. The monitoring apparatus of claim 99, wherein said  
10 monitoring apparatus is selected from the group consisted of  
sensor, fire alarm and monitoring system.

107. A healthcare system comprising:  
a healthcare apparatus;  
15 at least one communication terminal;  
an electronic apparatus connected to a telephone line  
corresponding to a phone number, said electronic  
apparatus communicating with said healthcare  
apparatus by a wired or wireless transmission  
20 medium and with said communication terminal by  
said telephone line, said healthcare apparatus and  
communication terminal transmitting data to each  
other through said electronic apparatus, said  
electronic apparatus comprising:  
25 a signal format converter for converting a signal

transmitted from said healthcare apparatus  
and communication terminal; and  
a control circuit connected to said signal format  
converter for controlling an operation flow of  
said electronic apparatus;  
wherein said communication terminal transmits a  
signal to said electronic apparatus by  
assigning said phone number to be a  
destination address.

10

108. The system of claim 107, wherein said phone  
number includes an extension number or a code.

109. The system of claim 107, further comprising a  
display connected to said electronic apparatus for said electronic  
apparatus to transmit a signal from said communication terminal  
to said display.

15

110. The system of claim 107, wherein said signal  
format converter is selected from the group consisted of FSK,  
DTMF and CAS codecs.

20

111. The system of claim 109, wherein said electronic  
apparatus further comprises a display driver connected to said  
control circuit for driving said display.

25

112. The apparatus of claim 109, wherein said display is selected from the group consisted of CRT, LED, LCD and PDP display.

5

113. The system of claim 109, wherein said display is provided by a TV or computer.

114. The system of claim 107, wherein said electronic  
10 apparatus further comprises an alert output apparatus connected to said control circuit for notifying a new message arrived.

115. The system of claim 107, wherein said  
transmission medium is selected from the group consisted of  
15 power line, telephone line, RF and IR.

116. The system of claim 107, wherein said healthcare  
apparatus is selected from the group consisted of  
sphygmomanometer, heart-rate measuring apparatus, glucometer,  
20 heart diagnostic apparatus and other health test apparatus.

117. The system of claim 107, wherein said  
communication terminal is selected from the group consisted of  
medical institute, family doctor and/or relative of a user, and other  
25 predetermined terminals.



118. An electronic apparatus for healthcare service for transmitting a signal from a healthcare apparatus to a user-predetermined terminal by a telephone line, said electronic  
5 apparatus comprising:

a signal format converter for converting a signal transmitted from said healthcare apparatus to a format for transmission on said telephone line; and  
a control circuit connected to said signal format  
10 converter for controlling an operation flow of said electronic apparatus.

119. The apparatus of claim 118, wherein said signal format converter is selected from the group consisted of FSK,  
15 DTMF and CAS codecs.

120. The apparatus of claim 118, wherein said electronic apparatus further comprises a display driver connected to said control circuit for driving a display.  
20

121. The apparatus of claim 118, wherein said electronic apparatus further comprises an alert output apparatus for notifying a new message arrived.

25 122. The apparatus of claim 118, wherein said

healthcare apparatus is selected from the group consisted of sphygmomanometer, heart-rate measuring apparatus, glucometer, heart diagnostic apparatus and other health test apparatus.

5           123. The apparatus of claim 118, wherein said communication terminal is selected from the group consisted of medical institute, family doctor and/or relative of a user, or other predetermined terminals.

10           124. A multi-functional TV set comprising:  
a connection port for connecting to a telephone line  
corresponding to a phone number;  
an electronic apparatus comprising:  
at least one codec for decoding a signal  
15           transmitted from a telephone line, said  
transmitted signal having a destination  
address corresponding to said phone  
number;  
a control circuit connected to said codec for  
20           controlling an operation flow of said  
electronic apparatus; and  
a signal converter for converting said decoded  
signal to a TV signal; and  
a TV module for outputting a content from said  
25           signal converter in picture and/or voice

manner.

125. The TV set of claim 124, wherein said signal from said telephone line to said TV set has a content selected from the group consisted of CID, EID, e-mail, SMS, e-survey, e-advertisement, weather report, traffic transportation time table, stock information, e-lottery, traffic status and entertainment information.

126. The TV set of claim 124, wherein said signal converter is selected from the group consisted of FSK, DTMF and CAS codecs.

127. The TV set of claim 124, further comprising a memory connected to said control circuit.

128. The TV set of claim 127, wherein said memory stores a data and/or application program, said data having a content selected from the group consisted of dictionary, address book, calendar, financial information, e-book, and predetermined information.

129. The TV set of claim 124, wherein said electronic apparatus is connected to a receiver module for communicating

with an external input apparatus by a wired or wireless transmission medium.

130. The TV set of claim 128, wherein said input  
5 apparatus is selected from the group consisted of remote controller, mobile telephone, pager, electronic watch, keyboard, handwritten input apparatus and PDA.

131. The TV set of claim 129, wherein said transmission  
10 medium is selected from the group consisted of power line, telephone line, signal transmission line, RF and IR.

132. The TV set of claim 124, further comprising a  
15 signal communication module connected to said electronic apparatus for communicating with outside in one-way or two-way manner.

133. The TV set of claim 132, wherein said signal  
20 communication module communicates with an intelligent appliance by a wired or wireless transmission medium for controlling said intelligent appliances or exchanging an information.

134. The TV set of claim 133, wherein said transmission  
25 medium is selected from the group consisted of power line,

telephone line, signal transmission line, RF and IR.

135. The TV set of claim 133, wherein said intelligent  
appliance is selected from the group consisted of air conditioner,  
5 VCR, coffee maker, washing machine, electromagnetic stove,  
microwave oven, refrigerator, VCD player, DVD player and SVCD  
player.

136. The TV set of claim 132, wherein said signal  
10 communication module is further connected to a security  
apparatus by a wired or wireless transmission medium for  
implementing a security system.

137. The TV set of claim 136, wherein said security  
15 apparatus is selected from the group consisted of sensor, fire  
alarm and monitoring system.

138. The TV set of claim 136, wherein said transmission  
medium is selected from the group consisted of power line,  
20 telephone line, signal transmission line, RF and IR.

139. The TV set of claim 132, wherein said signal  
communication module communicates with a healthcare apparatus  
by a wired or wireless transmission medium.

25

140. The TV set of claim 139, wherein said healthcare apparatus is selected from the group consisted of sphygmomanometer, heart-rate measuring apparatus, glucometer, heart diagnostic apparatus and other health test apparatus.

5

141. The TV set of claim 139, wherein said transmission medium is selected from the group consisted of power line, telephone line, RF and IR.

10

142. The TV set of claim 132, wherein said signal communication module communicates with an emergency call apparatus by a wired or wireless transmission medium.

15

143. The TV set of claim 142, wherein said emergency call apparatus has a button for instantly sending out an emergency call to said signal communication module.

20

144. The TV set of claim 142, wherein said emergency call apparatus is a portable apparatus.

145. The TV set of claim 144, wherein said portable apparatus has a button for instantly sending out an emergency call to said signal communication module.

25

146. The TV set of claim 144, wherein said portable

apparatus is selected from the group consisted of mobile telephone, pager, electronic watch, electronic button and remote controller.

5           147. The TV set of claim 142, wherein said emergency call apparatus is installed on an emergency call service terminal at a particular location.

10           148. The TV set of claim 142, wherein said transmission medium is selected from the group consisted of telephone line, power line, signal transmission line, RF and IR.

          149. The TV set of claim 124, further comprising a reader for proceeding an e-payment mechanism.

15           150. The TV of claim 149, wherein said reader is a card reader.